

PPSC Physics Topic 1 Mechanics

Sr	Questions	Answers Choice
1	if the line of action of force passes through the axis of rotation of origin, then torque is.	A. Maximum B. Negative C. Zero D. 1
2	During the projectile motion, the horizontal component of velocity.	A. Changes with time B. Becomes zero C. Does not change but remains constant D. Increases with time
3	The work done in moving a body from one place to another in a gravitational field is independent of the	A. applied force B. Force of gravity C. Path followed by the body D. Force of earth
4	When net torque acting on a system is zero which of the following will be constant.	A. Force B. Angular momentum C. Linear momentum D. Linear impulse
5	The moment of inertia depends upon	A. Mass of the body and its radius B. Mass of the body and its angular speed C. Mass and angular momentum D. Mass as well as the distribution w.r.t axis of rotation
6	If the slope of velocity time graph is increasing with time the body is said to have.	A. Positive acceleration B. Average acceleration C. Uniform acceleration D. Retardation
7	Which of the following quantities is zero about the centre of mass of body.	A. Mass B. acceleration C. Moment D. Angular acceleration
8	When a vector is multiplied by a negative number its direction.	A. Remains unchanged B. Changes by 180° C. Becomes horizontal D. Vertical to each other
9	If a force of 50 N is acting along x axis , then its component along y-axis will be.	A. Zero B. The same C. Of the half magnitude D. Of the double magnitude
10	In any collision between two bodies there need nor the conservation of	A. Linear momentum B. Angular momentum C. Total energy D. Kinetic energy
11	The value of 'g' is affected by earth's	A. Non spherical shape B. Daily motion C. Volume D. Density
12	A particle performs SHM of amplitude 0.020 and frequency 2.5 Hz. What is its maximum speed.	A. 0.050 m s ⁻¹ B. 0.125 m s ⁻¹ C. 0.314 m s ⁻¹ D. 0.75 m s ⁻¹
13	Which of the following quantities associated with SHM does not vary periodically.	A. velocity B. Displacement C. Acceleration D. Total energy
14	When damping is small amplitude of vibrational resonance will be	A. small B. Large C. Infinite D. Un changed
		A. c m ⁻¹

15	Which of the following is a unit of electric field strength.	B. V m^{-2} C. N C^{-1} D. N V^{-1}
16	Which of the following pair of physical quantities have the same dimension.	A. Momentum and pressure B. Energy and work C. Linear and angular momentum D. Force and surface tension
17	The unit of energy are the same as that of	A. Force B. Power C. Work D. Efficiency
18	Absolute P.E. of a body can be calculated	A. At centre of the earth B. Below centre of the earth C. From surface of the earth D. Below surface of the earth
19	The minimum velocity needed to put a satellite into the orbit	A. Terminal velocity B. Escape velocity C. Critical velocity D. Linear velocity
20	If the earth stopped rotating the weight of objects at either pole would.	A. Be greater B. Be less C. Vary with altitude D. Be the same before